

WHAT IS CLAIMED IS:

1. A method of forming a piconet in a wireless communications device, the method comprising:
 - (a) transmitting a beacon packet across a wireless channel during a first predetermined time interval;
 - (b) scanning the wireless channel for a second predetermined time interval, the second predetermined time interval immediately following the first predetermined time interval;
 - (c) receiving a piconet joining request packet from a remote wireless communications device during the second predetermined time interval; and
 - (d) transmitting a confirmation packet to the remote wireless communications device during a third predetermined time interval, the third predetermined time interval immediately following the second predetermined time interval.
2. The method of claim 1, wherein the piconet joining request includes a request for a role switch.
3. The method of claim 2, further comprising receiving a beacon packet from the remote wireless communications device.
4. The method of claim 1, wherein the beacon packet, the piconet joining request packet, and the confirmation packet each include one or more OFDM symbols.
5. The method of claim 1, wherein the wireless channel employs a frequency hopping pattern.
6. A method in a wireless communications device, comprising:
 - (a) transmitting a first beacon packet across a wireless channel during a first predetermined time interval;

(b) scanning the wireless channel for a second predetermined time interval, the second predetermined time interval immediately following the first predetermined time interval;

(c) receiving a request for additional information from a remote wireless communications device during the second predetermined time interval; and

(d) transmitting the additional information with a second beacon packet across the wireless channel.

7. The method of claim 6, wherein the additional information includes available services from the wireless communications device.

8. The method of claim 6, wherein the additional information includes identifiers of devices that are in a piconet with the wireless communications device.

9. The method of claim 6, wherein the wireless channel employs a frequency hopping pattern.

10. A wireless communications device, comprising:

means for transmitting a beacon packet across a wireless channel during a first predetermined time interval;

means for scanning the wireless channel for a second predetermined time interval, the second predetermined time interval immediately following the first predetermined time interval;

means for receiving a piconet joining request packet from a remote wireless communications device during the second predetermined time interval; and

means for transmitting a confirmation packet to the remote wireless communications device during a third predetermined time interval, the third predetermined time interval immediately following the second predetermined time interval.

11. A wireless communications device, comprising:

means for transmitting a first beacon packet across a wireless channel during a first predetermined time interval;

means for scanning the wireless channel for a second predetermined time interval, the second predetermined time interval immediately following the first predetermined time interval;
means for receiving a request for additional information from a remote wireless communications device during the second predetermined time interval; and
means for transmitting the additional information with a second beacon packet across the wireless channel.

12. A wireless communications device, comprising:

means for monitoring a wireless channel for transmissions during a predetermined time interval;

means for receiving a beacon packet from a remote wireless communications device across the wireless channel during the predetermined time interval; and

means for, immediately following receipt of the beacon packet, sending a response packet to the remote wireless communications device when the remote wireless communications device is the only device transmitting device during the predetermined time interval.